



December 14, 2010

Duke Energy
Miami Fort Generating Station
11021 Brower Road
North Bend, OH 45052

Attention: Ms. Sue Wallace
Chemical Engineer

Re: Results – December 2010
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)
[Samples were collected at this station one detention time before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)
[Samples were collected at this outfall one detention time after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, total metal mercury samples were collected from Station 601 and analyzed by Method 7470A. Also at the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.



Duke Energy - MFS
December 14, 2010
Page 2

The results from the **December 1 and 2, 2010** sampling event are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

A handwritten signature in blue ink, appearing to read "Michael A. Wagner", is positioned above the printed name.

Michael A. Wagner
Project Manager

A handwritten signature in blue ink, appearing to read "Dennis P. Connair", is positioned above the printed name.

Dennis P. Connair, C.P.G.
Principal

MAW/DPC/Duke Energy-MFS LL Hg 2011
Job No. 14949813

TABLE 1
ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)
DUKE ENERGY - MIAMI FORT STATION
NORTH BEND, OHIO

Sample ID	Date Sampled / Results (ng/L, parts per trillion)						
	8/2/10	9/1/10	10/4/10	11/1/10	12/1/10	1/xx/2011	2/xx/2011
River Intake	1.9	0.86	1.1	1.1	3.0		
Station 601 (7)	48,200	391,000	187,000	408,000	380,000		
Station 601 (7)*	14,000	8,600	23,200	350,000	494,000		
Station 601 (7)* [duplicate]	13,000	Not Collected	Not Collected	378,000	489,000		
Station 601 (8)	NSC	428,000	285,000	247,000	184,000		
Station 601 (8)*	NSC	8,300	30,600	104,000	490,000		
Station 601 (8)*[duplicate]	NSC	Not Collected	28,400	Not Collected	Not Collected		
Outfall 608	420	631	440	248	345		
Outfall 608 [duplicate]	364	650	449	254	333		
Outfall 608 [dissolved, 0.45 micron]	Not Collected	83	70	124	81.7		
APB-002	1.8	2.3	3.1	2.9	4.0		
APB-002 [duplicate]	1.3	1.9	2.8	3.0	3.6		
Field Blank (RI-FB)	<0.50	<0.50	<0.50	<0.50	<0.50		
Field Blank (WWT-FB)	<0.50	<0.50	<0.50	<0.50	<0.50		
Field Blank (AP-FB)	<0.50	<0.50	<0.50	<0.50	<0.50		
Trip Blank	<0.50	<0.50	<0.50	<0.50	<0.50		

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

NSC - No Sample Collected (Unit's wastewater was not being processed at the time of sample collection)

* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]

ANALYTICAL REPORT

PROJECT NO. 14949813

MIAMI FORT LLHG 2010

Lot #: A0L030537

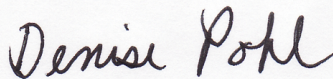
Sue Wallace

Duke Energy Corporation

PO Box 5385

Cincinnati, OH 45201

TESTAMERICA LABORATORIES, INC.



Denise Pohl

Project Manager

denise.pohl@testamericainc.com

Approved for release.
Denise Pohl
Project Manager
12/13/2010 7:36 AM

December 11, 2010

TestAmerica Laboratories, Inc.

TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720

Tel (330)497-9396 Fax (330)497-0772 www.testamericainc.com



CASE NARRATIVE

A0L030537

The following report contains the analytical results for fourteen water samples and one quality control sample submitted to TestAmerica North Canton by Cinergy from the MIAMI FORT LLHG 2010 Site, project number 14949813. The samples were received December 03, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Candance Bonham, Mike Wagner, and Sue Wallace on December 09, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Denise Pohl, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 16.2°C.

See TestAmerica's Cooler Receipt Form for additional information.

METALS

Matrix spike recovery and relative percent difference (RPD) data were not calculated for some analytes for batch(es) 0340258 due to the sample concentration reading greater than four times the spike amount. See the Matrix Spike Report for the affected analytes which will be flagged with "NC, MSB".

The matrix spike/matrix spike duplicate(s) for batch(es) 0340263 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals ICP-MS</u>	<u>Metals ICP Trace</u>
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.



TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available upon request.
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada
(#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), NAVY,
ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0L030537

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
RI 12/01/10 17:55 002				
Mercury	3.0	0.50	ng/L	CFR136A 1631E
601(7)WWT 12/01/10 18:20 003				
Mercury	380000	10000	ng/L	CFR136A 1631E
601(7)WWT TOT 12/01/10 18:20 004				
Mercury	494	12.0	ug/L	SW846 7470A
601(7)WWT TOT DUP 12/01/10 18:25 005				
Mercury	489	10.0	ug/L	SW846 7470A
601(8)WWT 12/01/10 18:40 006				
Mercury	184000	10000	ng/L	CFR136A 1631E
601(8)WWT TOT 12/01/10 18:40 007				
Mercury	490	10.0	ug/L	SW846 7470A
608 WWT 12/02/10 08:20 009				
Mercury	345	20.0	ng/L	CFR136A 1631E
608 WWT DUP 12/02/10 08:25 010				
Mercury	333	20.0	ng/L	CFR136A 1631E
608 WWT DISS 12/02/10 08:30 011				
Mercury - DISSOLVED	81.7	5.0	ng/L	CFR136A 1631E
OUTFALL 002 12/02/10 09:00 013				
Mercury	4.0	0.50	ng/L	CFR136A 1631E
OUTFALL 002 DUP 12/02/10 09:05 014				
Mercury	3.6	0.50	ng/L	CFR136A 1631E

ANALYTICAL METHODS SUMMARY

A0L030537

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury, Low Level Mercury, CVA Fluorescence	CFR136A 1631E

References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0L030537

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MAVA7	001	RI FB	12/01/10	17:50
MAVA9	002	RI	12/01/10	17:55
MAVCC	003	601(7)WWT	12/01/10	18:20
MAVCD	004	601(7)WWT TOT	12/01/10	18:20
MAVCJ	005	601(7)WWT TOT DUP	12/01/10	18:25
MAVCK	006	601(8)WWT	12/01/10	18:40
MAVCN	007	601(8)WWT TOT	12/01/10	18:40
MAVCP	008	608 WWT FB	12/02/10	08:15
MAVCT	009	608 WWT	12/02/10	08:20
MAVCV	010	608 WWT DUP	12/02/10	08:25
MAVCW	011	608 WWT DISS	12/02/10	08:30
MAVC2	012	OUTFALL 002 FB	12/02/10	08:55
MAVC3	013	OUTFALL 002	12/02/10	09:00
MAVC4	014	OUTFALL 002 DUP	12/02/10	09:05
MAVC5	015	TRIP BLANK	12/02/10	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Duke Energy Corporation

Client Sample ID: RI FB

TOTAL Metals

Lot-Sample #...: A0L030537-001

Matrix.....: WQ

Date Sampled...: 12/01/10 17:50 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340258						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVA71AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: RI

TOTAL Metals

Lot-Sample #...: A0L030537-002

Matrix.....: WG

Date Sampled...: 12/01/10 17:55 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340258						
Mercury	3.0	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVA91AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 601(7)WWT

TOTAL Metals

Lot-Sample #...: A0L030537-003

Matrix.....: WG

Date Sampled...: 12/01/10 18:20 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340258						
Mercury	380000	10000	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCC1AA

Dilution Factor: 20000

Duke Energy Corporation

Client Sample ID: 601(7)WWT TOT

TOTAL Metals

Lot-Sample #...: A0L030537-004

Matrix.....: WG

Date Sampled...: 12/01/10 18:20 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340011						
Mercury	494	12.0	ug/L	SW846 7470A	12/06-12/07/10	MAVCD1AA
		Dilution Factor: 60				

Duke Energy Corporation

Client Sample ID: 601(7)WWT TOT DUP

TOTAL Metals

Lot-Sample #...: A0L030537-005

Matrix.....: WG

Date Sampled...: 12/01/10 18:25 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340011						
Mercury	489	10.0	ug/L	SW846 7470A	12/06-12/07/10	MAVCJ1AA
		Dilution Factor: 50				

Duke Energy Corporation

Client Sample ID: 601(8)WWT

TOTAL Metals

Lot-Sample #...: A0L030537-006

Matrix.....: WG

Date Sampled...: 12/01/10 18:40 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340263						
Mercury	184000	10000	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCK1AA

Dilution Factor: 20000

Duke Energy Corporation

Client Sample ID: 601(8)WWT TOT

TOTAL Metals

Lot-Sample #...: A0L030537-007

Matrix.....: WG

Date Sampled...: 12/01/10 18:40 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340011						
Mercury	490	10.0	ug/L	SW846 7470A	12/06-12/07/10	MAVCN1AA
		Dilution Factor: 50				

Duke Energy Corporation

Client Sample ID: 608 WWT FB

TOTAL Metals

Lot-Sample #...: A0L030537-008

Matrix.....: WQ

Date Sampled...: 12/02/10 08:15 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340263						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCP1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 608 WWT

TOTAL Metals

Lot-Sample #...: A0L030537-009

Matrix.....: WG

Date Sampled...: 12/02/10 08:20 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340263						
Mercury	345	20.0	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCT1AA
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: 608 WWT DUP

TOTAL Metals

Lot-Sample #...: A0L030537-010

Matrix.....: WG

Date Sampled...: 12/02/10 08:25 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340263						
Mercury	333	20.0	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCV1AA
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: 608 WWT DISS

DISSOLVED Metals

Lot-Sample #...: A0L030537-011

Matrix.....: WG

Date Sampled...: 12/02/10 08:30 Date Received...: 12/03/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0340263						
Mercury	81.7	5.0	ng/L	CFR136A 1631E	12/06-12/08/10	MAVCW1AA

Dilution Factor: 10

Duke Energy Corporation

Client Sample ID: OUTFALL 002 FB

TOTAL Metals

Lot-Sample #...: A0L030537-012

Matrix.....: WQ

Date Sampled...: 12/02/10 08:55 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340258						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVC21AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002

TOTAL Metals

Lot-Sample #...: A0L030537-013

Matrix.....: WG

Date Sampled...: 12/02/10 09:00 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340258						
Mercury	4.0	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVC31AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 DUP

TOTAL Metals

Lot-Sample #...: A0L030537-014

Matrix.....: WG

Date Sampled...: 12/02/10 09:05 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340258						
Mercury	3.6	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVC41AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: TRIP BLANK

TOTAL Metals

Lot-Sample #...: A0L030537-015

Matrix.....: WQ

Date Sampled...: 12/02/10

Date Received...: 12/03/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0340258						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAVC51AA
		Dilution Factor: 1				

QUALITY CONTROL SECTION

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0L060000-011 Prep Batch #... : 0340011						
Mercury	ND	0.20	ug/L	SW846 7470A	12/06/10	MAWLM1DE
Dilution Factor: 1						

MB Lot-Sample #: A0L060000-258 Prep Batch #... : 0340258						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAXDA1AA
Dilution Factor: 1						

MB Lot-Sample #: A0L060000-263 Prep Batch #... : 0340263						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAXDP1AA
Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: A0L030537

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: A0L060000-263 Prep Batch #... : 0340263						
Mercury	ND	0.50	ng/L	CFR136A 1631E	12/06-12/08/10	MAXDP1AD
Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: A0L060000-011 Prep Batch #... : 0340011					
Mercury	97	(81 - 123)	SW846 7470A	12/06/10	MAWLM1DV
		Dilution Factor: 1			
LCS Lot-Sample#: A0L060000-258 Prep Batch #... : 0340258					
Mercury	107	(77 - 125)	CFR136A 1631E	12/06-12/08/10	MAXDA1AC
		Dilution Factor: 1			
LCS Lot-Sample#: A0L060000-263 Prep Batch #... : 0340263					
Mercury	109	(77 - 125)	CFR136A 1631E	12/06-12/08/10	MAXDP1AC
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

DISSOLVED Metals

Client Lot #...: A0L030537

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: A0L060000-263 Prep Batch #...: 0340263

Mercury	109	(77 - 125)	CFR136A 1631E	12/06-12/08/10	MAXDP1AE
		Dilution Factor: 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

Date Sampled...: 12/02/10 13:00 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: A0L030430-001 Prep Batch #...: 0340011

Mercury	70	(69 - 134)	SW846 7470A	12/06/10	MATFQ1E2
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Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

Date Sampled...: 12/01/10 14:10 Date Received...: 12/03/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0L030534-002 Prep Batch #... : 0340258						
Mercury	NC,MSB	(71 - 125)		CFR136A 1631E	12/06-12/08/10	MAVAD1AC
	NC,MSB	(71 - 125)	(0-24)	CFR136A 1631E	12/06-12/08/10	MAVAD1AD
Dilution Factor: 5						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WG

Date Sampled...: 12/02/10 09:00 Date Received...: 12/03/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0L030537-013 Prep Batch #... : 0340258							
Mercury	89	(71 - 125)			CFR136A 1631E	12/06-12/08/10	MAVC31AC
	78	(71 - 125)	7.0	(0-24)	CFR136A 1631E	12/06-12/08/10	MAVC31AD
Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

Date Sampled...: 12/01/10 15:05 Date Received...: 12/03/10

<u>PARAMETER</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>	<u>RPD</u> <u>LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MS Lot-Sample #: A0L030569-002 Prep Batch #... : 0340263						
Mercury	69 N	(71 - 125)		CFR136A 1631E	12/06-12/08/10	MAVHH1AC
	72	(71 - 125)	2.6 (0-24)	CFR136A 1631E	12/06-12/08/10	MAVHH1AD
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: A0L030537

Matrix.....: WATER

Date Sampled...: 11/30/10 07:15 Date Received...: 12/03/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0L030594-001 Prep Batch #... : 0340263							
Mercury	99	(71 - 125)			CFR136A 1631E	12/06-12/08/10	MAVLJ1AC
	96	(71 - 125)	2.1	(0-24)	CFR136A 1631E	12/06-12/08/10	MAVLJ1AD
Dilution Factor: 1							

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1/007)

Client

Duke Energy

Project Manager

Mike Wagner (wes)

Date

12-2-2010

Chain of Custody Number

184673

Address

Miami Fort Station

Lab Number

Page 1 of 2

City

North Bend

State

OH

Zip Code

Project Name and Location (State)

Miami Fort Lt Hy 2010

Site Contact

John Allen

Carrier/Waybill Number

N/A

Lab Contact

Contract/Purchase Order/Quote No.

AA449613

Sample I.D. No. and Description
(Containers for each sample may be combined on one line)

Date

Time

Air

Aqueous

Sed.

Soil

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Containers & Preservatives

Analysis (Attach list if more space is needed)

601 (7) WWT

12-1-2010

1750

X

X

X

X

X

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601 (7) WWT

12-1-2010

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601 (7) WWT

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601 (7) WWT

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Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client

Duke Energy

Project Manager
Mike Wagner (UES)

Date
12-2-2010

Chain of Custody Number
184674

Lab Number

Address
Miami Fort Station

Telephone Number (Area Code)/Fax Number
(513) 451-3440 / (513) 451-3452

Page 2 of 2

City
North Bend

State
OH

Site Contact
John Arten

Analysis (Attach list if more space is needed)

Project Name and Location (State)

Miami Fort LL Hg 2010

Carrier/Waybill Number
N/A

Contract/Purchase Order/Quote No.

14949813

Containers & Preservatives

Special Instructions/
Conditions of Receipt

Sample ID, No. and Description
(Containers for each sample may be combined on one line)

Date

Time

Air

Aqueous

Sed.

Soil

Unpres.

H2SO4

HNO3

HCl

NaOH

ZnAc/NaOH

Matrix

Containers & Preservatives

Analysis (Attach list if more space is needed)

Special Instructions/
Conditions of Receipt

Outfall 002

12-2-2010

0900

X

X

X

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Outfall 002 DUP

12-2-2010

0905

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Trip Blank

12-2-2010

0905

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Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal ☐ Return To Client

☒ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other: Standard

1. Relinquished By

12-02-10

1330

12-2-10

1440

1. Received By

ATA/corn

12-2-10

1330

2. Received By

12-3-10

1100

2. Relinquished By

12-02-10

1330

12-2-10

1440

2. Received By

ATA/corn

12-2-10

1330

3. Received By

12-3-10

1100

3. Relinquished By

12-02-10

1330

12-2-10

1440

3. Received By

ATA/corn

12-2-10

1330

3. Received By

12-3-10

1100

Comments

DISTRIBUTION: WHITE - Returned to Client with Report. CANARY - Stays with the Sample. PINK - Field Copy

TestAmerica Cooler Receipt Form/Narrative
Lot Number: A0L030537
North Canton Facility

 Client Duke Energy Project Miami Fort By: [Signature]
 Cooler Received on 12/3/10 Opened on 12/3/10 (Signature)

 FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ☐
 TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other ☐

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
 If YES, Quantity _____ Quantity Unsalvageable _____
 Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
 Were custody seals on the bottle(s)? Yes ☐ No ☒
 If YES, are there any exceptions? _____
 2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
 3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
 4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
 5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other _____
 6. Cooler temperature upon receipt 16.2 °C See back of form for multiple coolers/temps ☐
 METHOD: IR ☒ Other ☐
 COOLANT: Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☒
 7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
 8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
 9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☒ NA ☐
 10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
 11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
 12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
 13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☐ No ☒
- Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
 Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) 1 x 250 each for all for Tot + Hg. were further preserved in Sample Receiving to meet recommended pH level(s) (Nitric Acid Lot# 051010-HNO₃; Sulfuric Acid Lot# 051010-H₂SO₄; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH₃COO)₂ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
6017 TOT	12	12-3-10	29
1 TORPUP	12		
1 B TOT	12		

TestAmerica Cooler Receipt Form/Narrative

North Canton Facility

[illegible]

Discrepancies Cont'd:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

END OF REPORT